1. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

   More than 10 units from the number 3.

   A. $[-7, 13]$

   B. $(-\infty, -7] \cup [13, \infty)$

   C. $(-\infty, -7) \cup (13, \infty)$

   D. $(-7, 13)$

   E. None of the above

---

2. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

   $$-9x + 5 \leq 5x + 4$$

   A. $(-\infty, a]$, where $a \in [-0.63, 0.04]$

   B. $[a, \infty)$, where $a \in [0.03, 0.34]$

   C. $[a, \infty)$, where $a \in [-0.29, -0.03]$

   D. $(-\infty, a]$, where $a \in [0.05, 0.16]$

   E. None of the above.

---

3. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

   $$-9 + 4x < \frac{37x - 8}{8} \leq -7 + 3x$$

   A. $(-\infty, a] \cup (b, \infty)$, where $a \in [8.25, 14.25]$ and $b \in [2.25, 8.25]$

   B. $(a, b]$, where $a \in [8.25, 17.25]$ and $b \in [3, 5.25]$

   C. $[a, b)$, where $a \in [9.75, 15]$ and $b \in [2.25, 4.5]$

   D. $(-\infty, a) \cup [b, \infty)$, where $a \in [11.25, 14.25]$ and $b \in [-1.5, 7.5]$

E. None of the above.

---

4. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-7 + 7x > 9x \text{ or } 9 + 3x < 4x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-10.5, -6]$ and $b \in [2.25, 7.5]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4.5, 0]$ and $b \in [8.25, 9.75]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-6.75, -3]$ and $b \in [8.25, 10.5]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-13.5, -7.5]$ and $b \in [0, 4.5]$

E. $(-\infty, \infty)$

---

5. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{-7}{2} - \frac{9}{8}x \leq \frac{5}{9}x - \frac{4}{5}$$

A. $[a, \infty)$, where $a \in [-4.5, 0.75]$

B. $(-\infty, a]$, where $a \in [0.75, 5.25]$

C. $[a, \infty)$, where $a \in [-1.5, 3]$

D. $(-\infty, a]$, where $a \in [-6, -0.75]$

E. None of the above.

---

6. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{-8}{7} + \frac{6}{2}x > \frac{7}{9}x + \frac{7}{5}$$

A. (a, ∞), where $a \in [0, 4.5]$

B. $(-\infty, a)$, where $a \in [-0.75, 4.5]$

C. (a, ∞), where $a \in [-3, -0.75]$

D. $(-\infty, a)$, where $a \in [-4.5, 0]$

E. None of the above.

---

7. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-4 + 6x > 8x \text{ or } 6 + 9x < 10x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4.5, 2.25]$ and $b \in [5.25, 12]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-4.5, -0.75]$ and $b \in [3.75, 9]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-9.75, -5.25]$ and $b \in [0.75, 2.25]$

D. $(-\infty, a] \cup [b, \infty)$, where $a \in [-8.25, -3.75]$ and $b \in [0, 2.25]$

E. $(-\infty, \infty)$

---

8. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

No less than 6 units from the number 5.

A. $[1, 11]$

B. $(-\infty, 1] \cup [11, \infty)$

C. $(1, 11)$

D. $(-\infty, 1) \cup (11, \infty)$

E. None of the above

---

9. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-4 + 5x \leq \frac{25x - 8}{4} < 6 + 4x$$

A. $[a, b)$, where $a \in [-2.4, -1.05]$ and $b \in [0, 6]$

B. $(-\infty, a) \cup [b, \infty)$, where $a \in [-2.25, 1.5]$ and $b \in [-1.5, 6]$

C. $(a, b]$, where $a \in [-2.25, -0.75]$ and $b \in [0, 4.5]$

D. $(-\infty, a] \cup (b, \infty)$, where $a \in [-5.25, 0]$ and $b \in [1.5, 8.25]$

E. None of the above.

---

10. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$3x + 8 \geq 5x - 10$$

A. $[a, \infty)$, where $a \in [9, 13]$

B. $(-\infty, a]$, where $a \in [6, 10]$

C. $(-\infty, a]$, where $a \in [-9, -3]$

D. $[a, \infty)$, where $a \in [-9, -7]$

E. None of the above.

---

11. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

No more than 6 units from the number -6.

A. $(-\infty, -12] \cup [0, \infty)$

B. $(-\infty, -12) \cup (0, \infty)$

C. $[-12, 0]$

D. $(-12, 0)$

E. None of the above

---

12. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-5x + 7 \geq 5x - 3$$

A. $(-\infty, a]$, where $a \in [-2.6, -0.6]$

B. $(-\infty, a]$, where $a \in [0.6, 2.6]$

C. $[a, \infty)$, where $a \in [0, 3.1]$

D. $[a, \infty)$, where $a \in [-1.5, -0.3]$

E. None of the above.

---

13. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-7 - 4x \leq \frac{-27x - 4}{8} < -3 - 4x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [9, 13.5]$ and $b \in [3, 10.5]$

B. $[a, b)$, where $a \in [6.75, 12.75]$ and $b \in [0.75, 8.25]$

C. $(a, b]$, where $a \in [9, 12.75]$ and $b \in [3, 5.25]$

D. $(-\infty, a] \cup (b, \infty)$, where $a \in [8.25, 12]$ and $b \in [3, 9.75]$

E. None of the above.

---

14. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-7 + 5x > 6x \text{ or } -8 + 9x < 11x$$

A. $(-\infty, a) \cup (b, \infty)$, where $a \in [-7.5, -3.75]$ and $b \in [-4.5, -2.25]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-9, -5.25]$ and $b \in [-5.25, -1.5]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [0, 4.5]$ and $b \in [5.25, 12]$

D. $(-\infty, a] \cup [b, \infty)$, where $a \in [-2.25, 5.25]$ and $b \in [3.75, 9.75]$

E. $(-\infty, \infty)$

---

15. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{10}{3} - \frac{4}{2}x > \frac{7}{6}x - \frac{8}{4}$$

A. $(-\infty, a)$, where $a \in [-4.5, 0.75]$

B. $(-\infty, a)$, where $a \in [-0.75, 2.25]$

C. (a, ∞), where $a \in [0.75, 2.25]$

D. (a, ∞), where $a \in [-5.25, 0.75]$

E. None of the above.

---

16. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{-8}{5} - \frac{10}{7}x > \frac{-5}{9}x + \frac{4}{8}$$

A. $(-\infty, a)$, where $a \in [0.75, 3.75]$

B. $(-\infty, a)$, where $a \in [-6, -1.5]$

C. (a, ∞), where $a \in [1.5, 6.75]$

D. (a, ∞), where $a \in [-7.5, 0.75]$

E. None of the above.

---

17. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-7 + 4x > 5x \text{ or } 8 + 4x < 5x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-7.35, -5.33]$ and $b \in [7.2, 10.5]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-9.3, -7.95]$ and $b \in [5.02, 7.42]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-8.81, -7.65]$ and $b \in [6.46, 7.14]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-7.34, -6.47]$ and $b \in [7.07, 8.38]$

E. $(-\infty, \infty)$

---

18. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

No less than 6 units from the number 4.

A. $(-2, 10)$

B. $(-\infty, -2) \cup (10, \infty)$

C. $(-\infty, -2] \cup [10, \infty)$

D. $[-2, 10]$

E. None of the above

---

19. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$8 - 9x < \frac{-22x - 5}{4} \leq 8 - 6x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [0, 6.75]$ and $b \in [12, 21.75]$

B. $(-\infty, a] \cup (b, \infty)$, where $a \in [-1.5, 5.25]$ and $b \in [16.5, 21]$

C. $(a, b]$, where $a \in [2.25, 5.25]$ and $b \in [18, 20.25]$

D. $[a, b)$, where $a \in [-0.75, 6.75]$ and $b \in [17.25, 23.25]$

E. None of the above.

---

20. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-4x - 5 \leq 9x + 3$$

A. $[a, \infty)$, where $a \in [-1.05, -0.12]$

B. $(-\infty, a]$, where $a \in [-2.84, 0.51]$

C. $(-\infty, a]$, where $a \in [0.12, 0.84]$

D. $[a, \infty)$, where $a \in [-0.01, 1.34]$

E. None of the above.

---

21. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

Less than 10 units from the number -3.

A. $(-13, 7)$

B. $[-13, 7]$

C. $(-\infty, -13) \cup (7, \infty)$

D. $(-\infty, -13] \cup [7, \infty)$

E. None of the above

---

22. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-10x + 3 > -5x - 6$$

A. $(-\infty, a)$, where $a \in [0.8, 6.8]$

B. (a, ∞), where $a \in [-2.8, -0.8]$

C. $(-\infty, a)$, where $a \in [-2.8, 0.2]$

D. (a, ∞), where $a \in [1.8, 3.8]$

E. None of the above.

---

23. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$8 + 5x \leq \frac{77x - 4}{9} < 7 + 8x$$

A. $[a, b)$, where $a \in [-3, 1.5]$ and $b \in [-17.25, -6.75]$

B. $(-\infty, a) \cup [b, \infty)$, where $a \in [-3.75, 0]$ and $b \in [-15.75, -12.75]$

C. $(-\infty, a] \cup (b, \infty)$, where $a \in [-5.25, -0.75]$ and $b \in [-15.75, -8.25]$

D. $(a, b]$, where $a \in [-4.5, 0.75]$ and $b \in [-16.5, -11.25]$

E. None of the above.

---

24. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-9 + 3x > 4x \text{ or } 8 + 4x < 7x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-3, -0.75]$ and $b \in [3.75, 14.25]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-7.5, 1.5]$ and $b \in [8.25, 12]$

C. $(-\infty, a] \cup [b, \infty)$, where $a \in [-9.75, -8.25]$ and $b \in [-0.75, 6]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-11.25, -5.25]$ and $b \in [0, 5.25]$

E. $(-\infty, \infty)$

---

25. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{-5}{5} + \frac{3}{4}x < \frac{6}{6}x + \frac{10}{9}$$

A. (a, ∞), where $a \in [-10.5, -4.5]$

B. $(-\infty, a)$, where $a \in [-10.5, -4.5]$

C. $(-\infty, a)$, where $a \in [5.25, 12]$

D. (a, ∞), where $a \in [6, 11.25]$

E. None of the above.

---

26. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{7}{2} + \frac{6}{6}x > \frac{10}{3}x - \frac{3}{9}$$

A. (a, ∞), where $a \in [-0.75, 3.75]$

B. $(-\infty, a)$, where $a \in [-1.5, 7.5]$

C. $(-\infty, a)$, where $a \in [-3.75, 0]$

D. (a, ∞), where $a \in [-3.75, 1.5]$

E. None of the above.

---

27. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-9 + 6x > 9x \text{ or } 9 + 9x < 11x$$

A. $(-\infty, a) \cup (b, \infty)$, where $a \in [-6.15, -4.35]$ and $b \in [1.65, 3.97]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-3.82, -2.92]$ and $b \in [4.35, 6.3]$

C. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4.35, -2.77]$ and $b \in [3.3, 6]$

D. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4.72, -3.3]$ and $b \in [0.97, 3.3]$

E. $(-\infty, \infty)$

---

28. Using an interval or intervals, describe all the x-values within or including a distance of the given values.

No less than 10 units from the number 7.

A. $[-3, 17]$

B. $(-\infty, -3) \cup (17, \infty)$

C. $(-\infty, -3] \cup [17, \infty)$

D. $(-3, 17)$

E. None of the above

---

29. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-5 - 7x \leq \frac{-37x + 5}{6} < 4 - 8x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [-8.25, -3.75]$ and $b \in [0.75, 5.25]$

B. $[a, b)$, where $a \in [-9, -5.25]$ and $b \in [0.75, 4.5]$

C. $(-\infty, a] \cup (b, \infty)$, where $a \in [-10.5, -3.75]$ and $b \in [-0.75, 9.75]$

D. $(a, b]$, where $a \in [-9, -2.25]$ and $b \in [-1.5, 2.25]$

E. None of the above.

---

30. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-7x + 10 \leq -6x + 4$$

A. $[a, \infty)$, where $a \in [3, 7]$

B. $[a, \infty)$, where $a \in [-9, -4]$

C. $(-\infty, a]$, where $a \in [-8, -4]$

D. $(-\infty, a]$, where $a \in [2, 12]$

E. None of the above.
